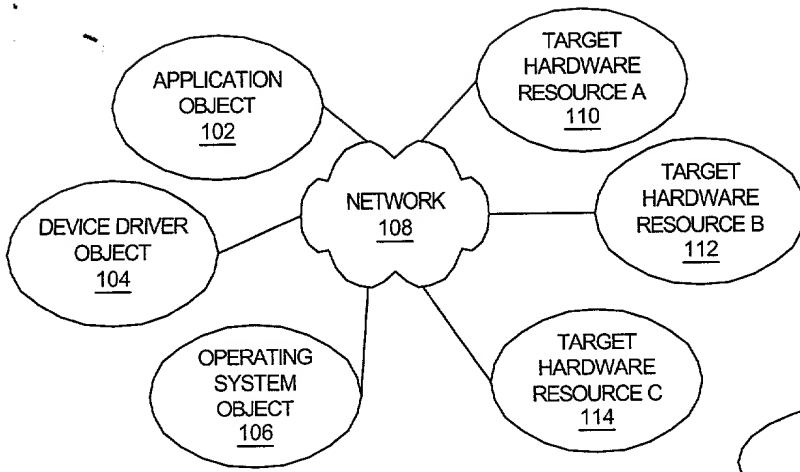


Prior Art
Figure 1A



Prior Art
Figure 1B

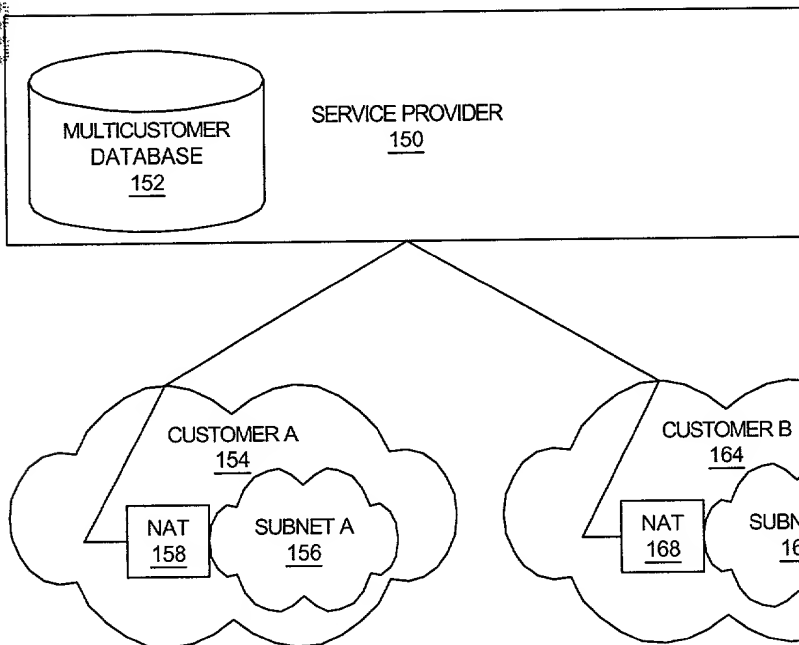
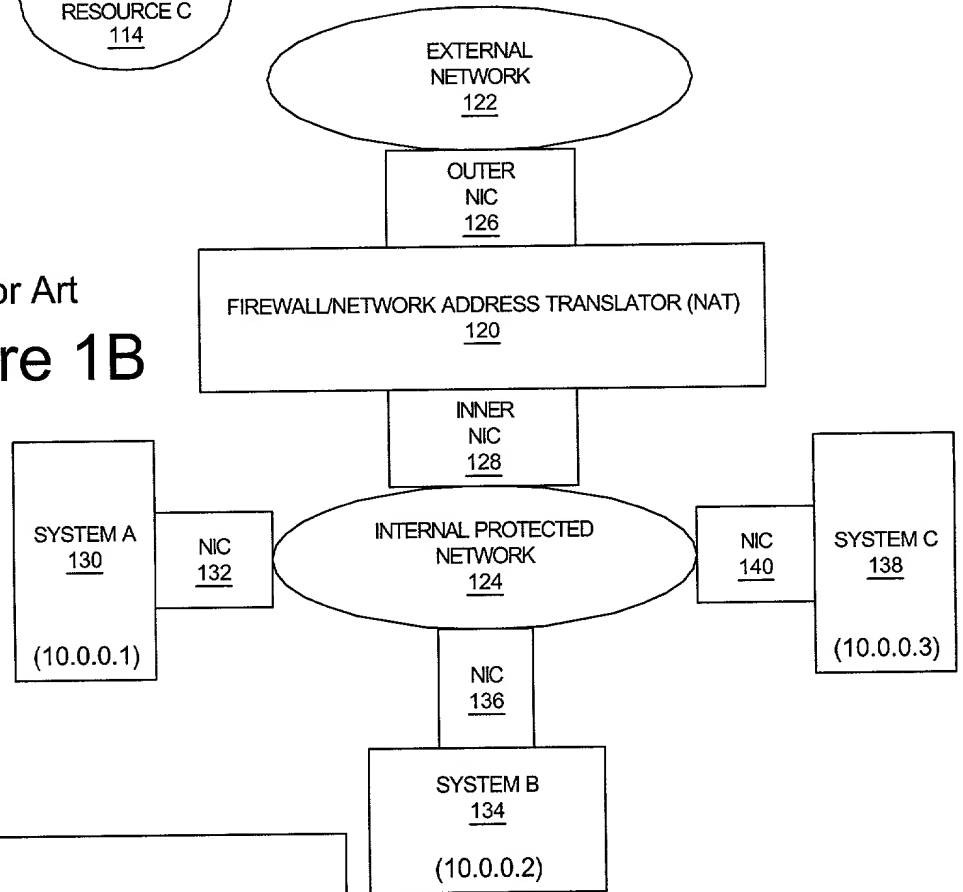


Figure 1C

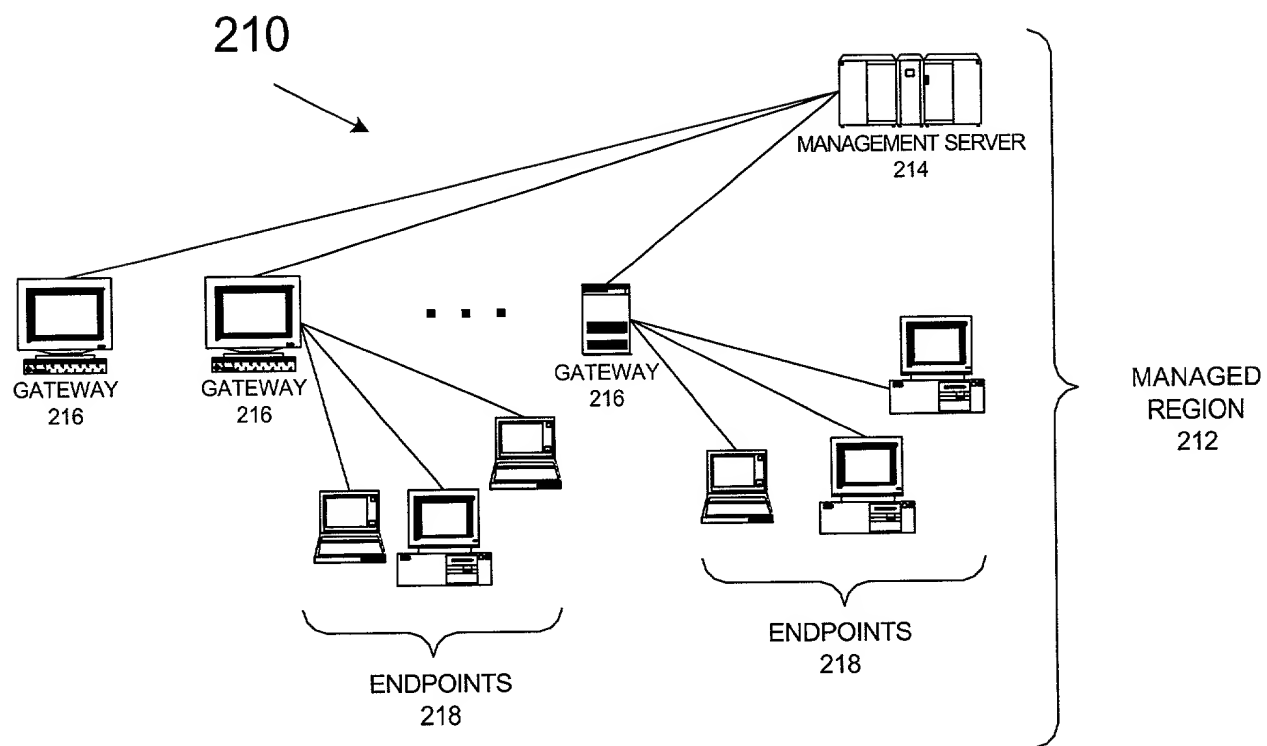


Figure 2A

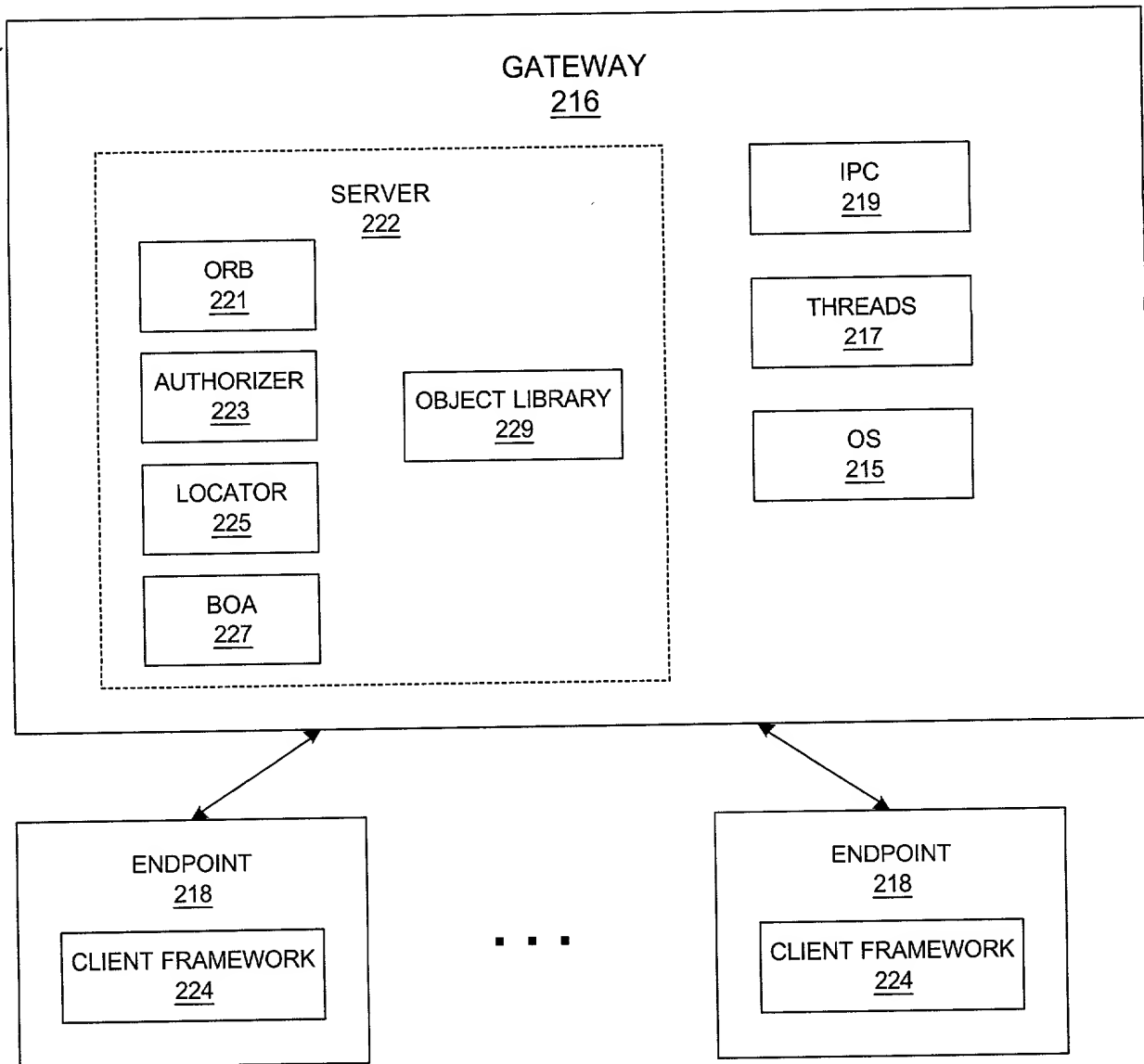


Figure 2B

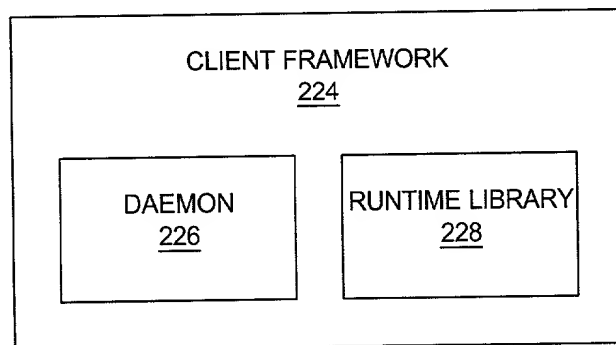


Figure 2C

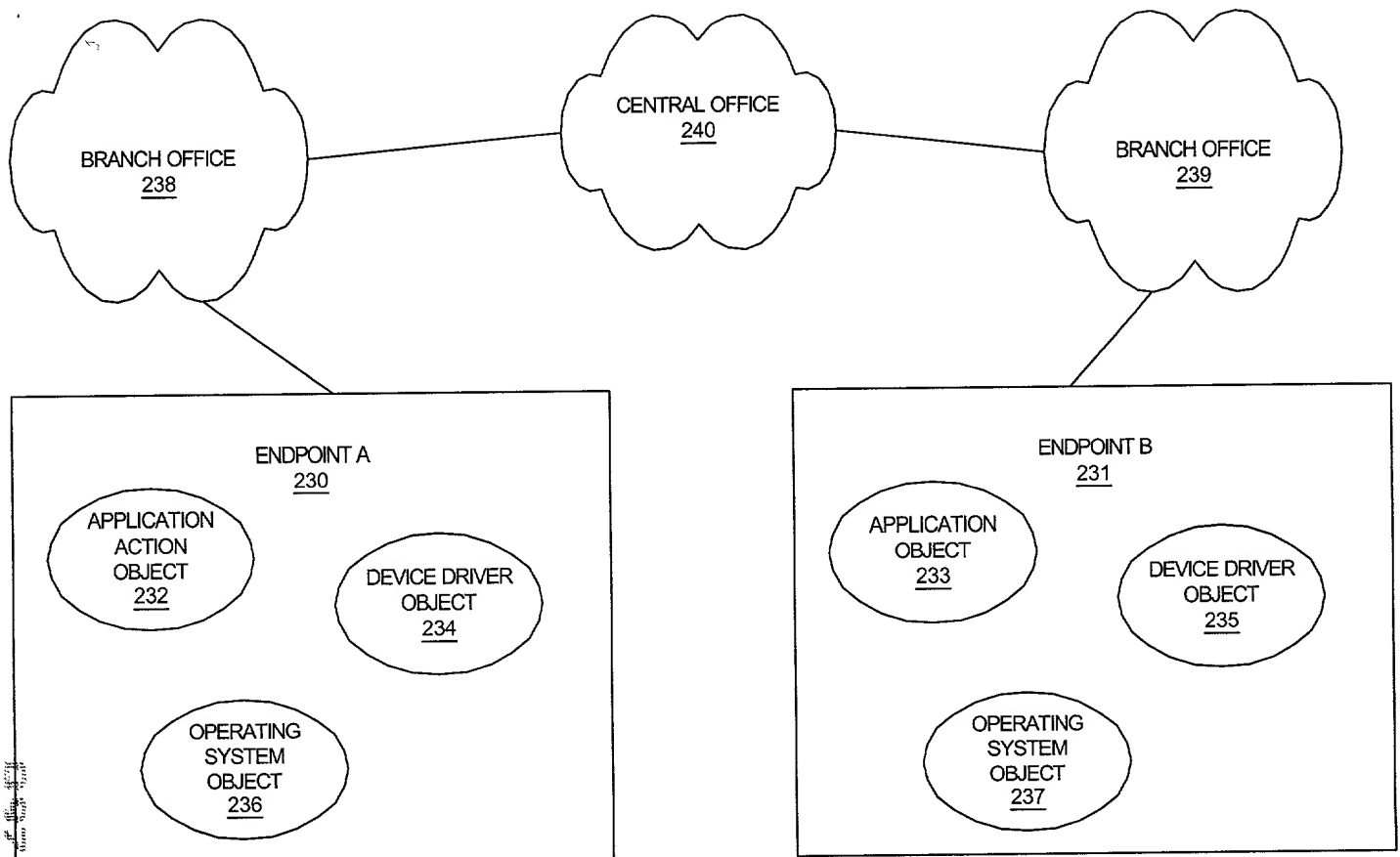


Figure 2D

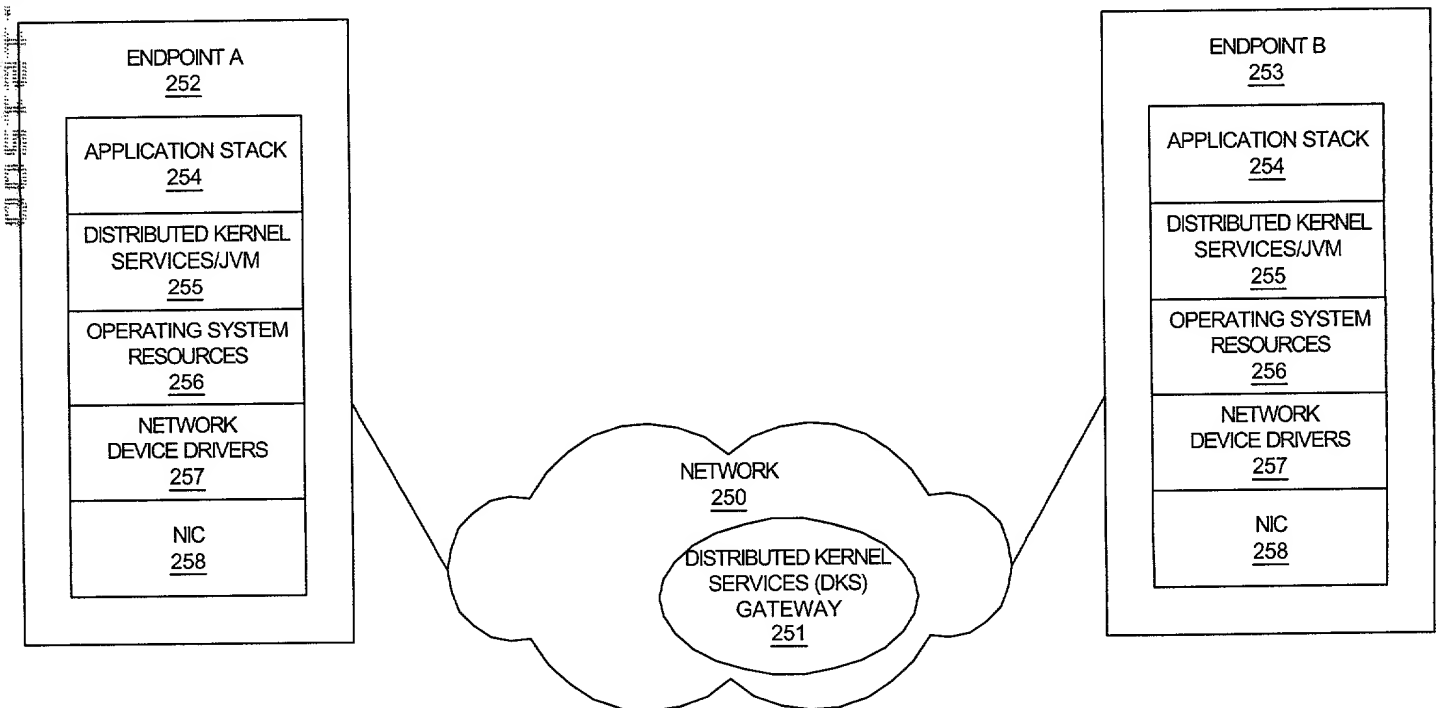


Figure 2E

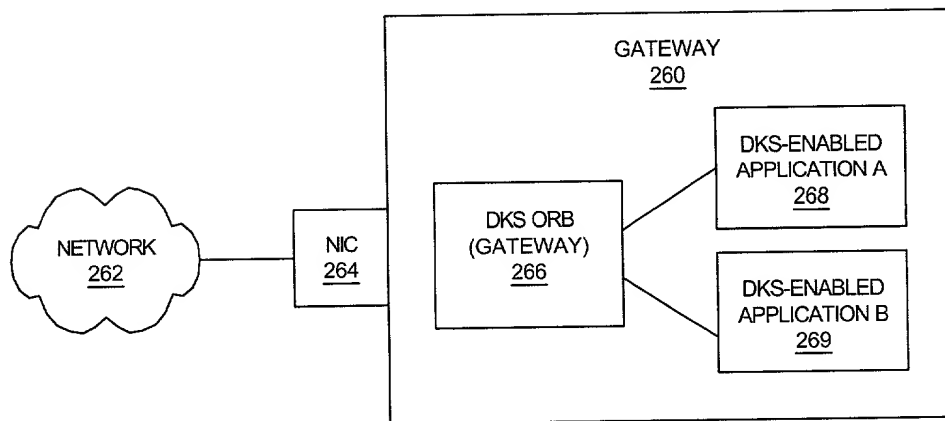


Figure 2F

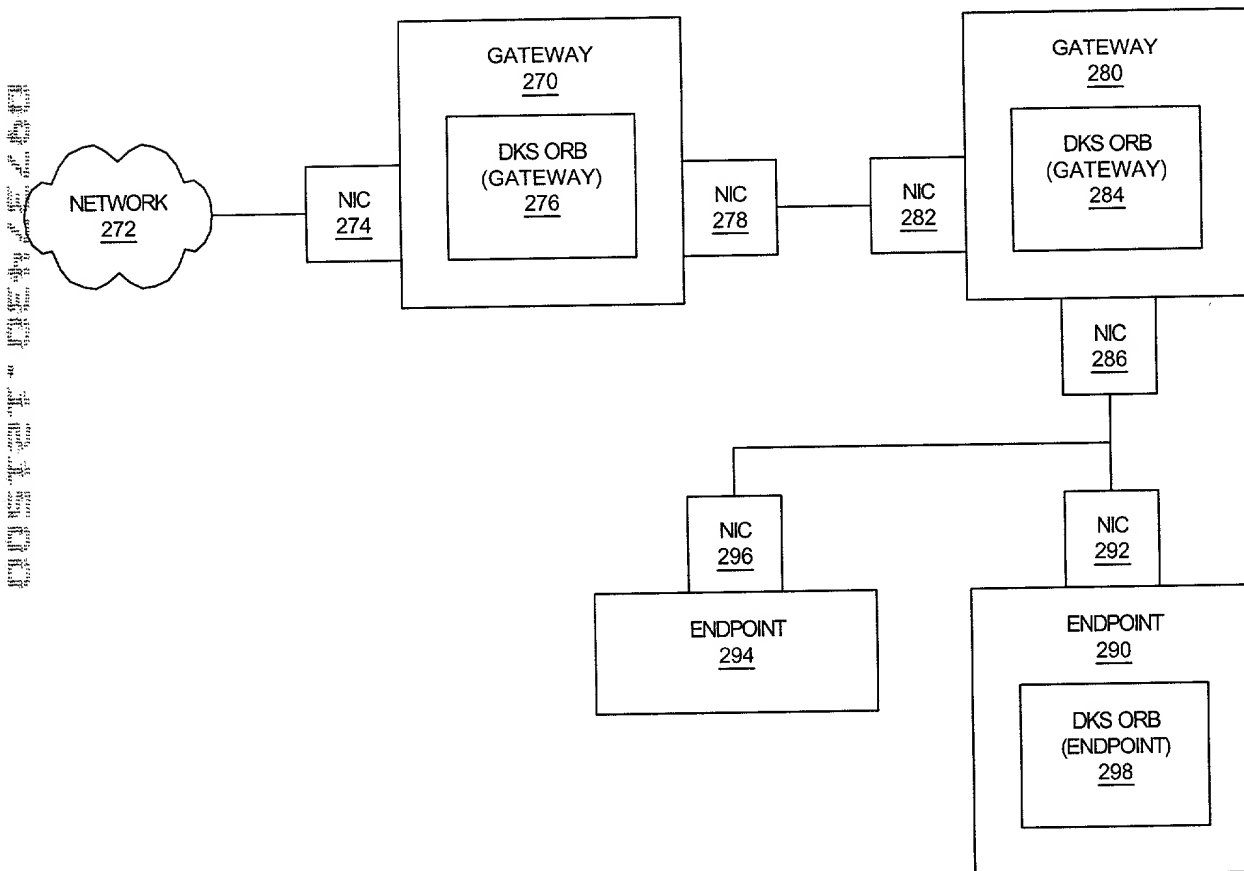


Figure 2G

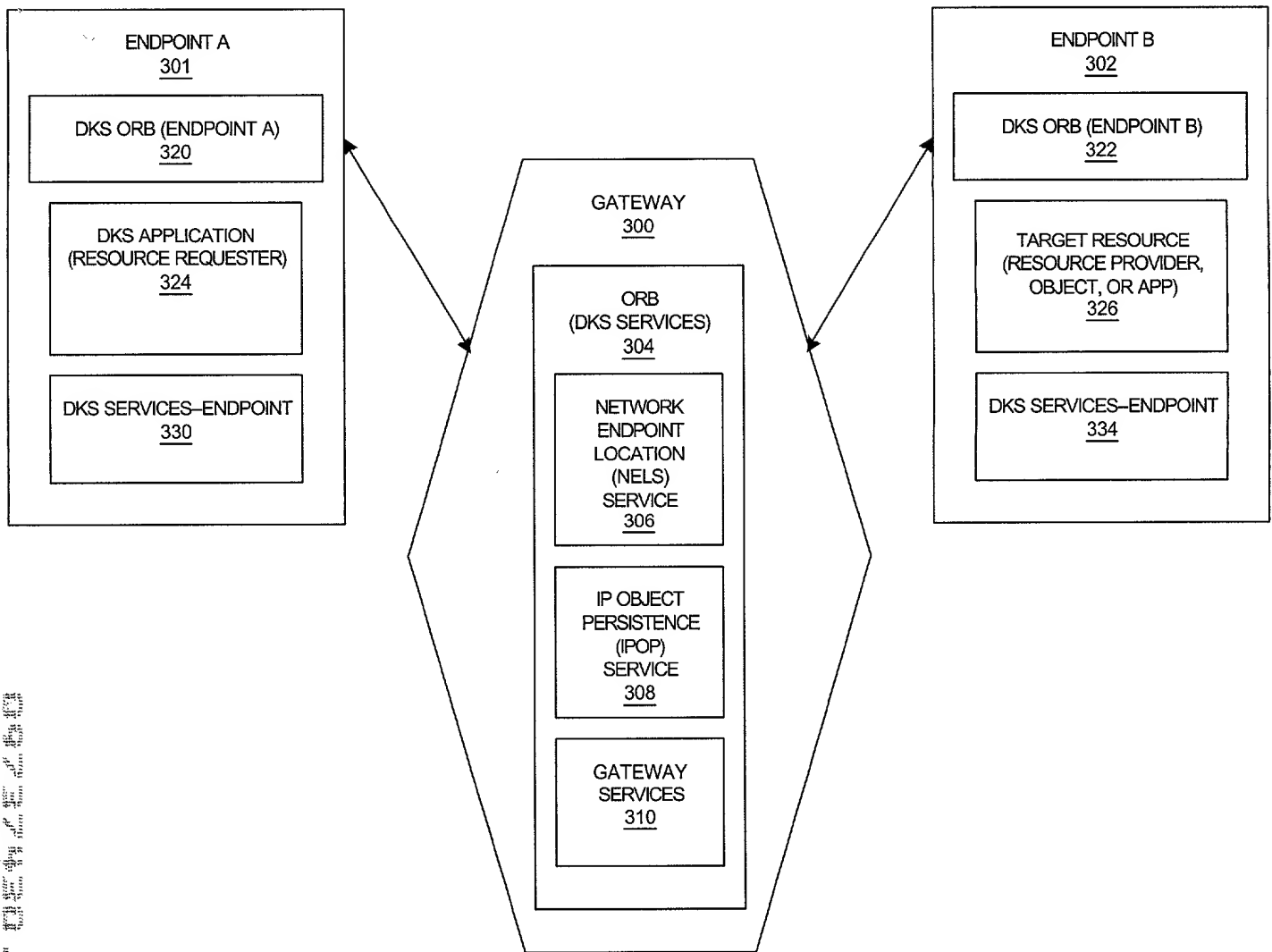


Figure 3

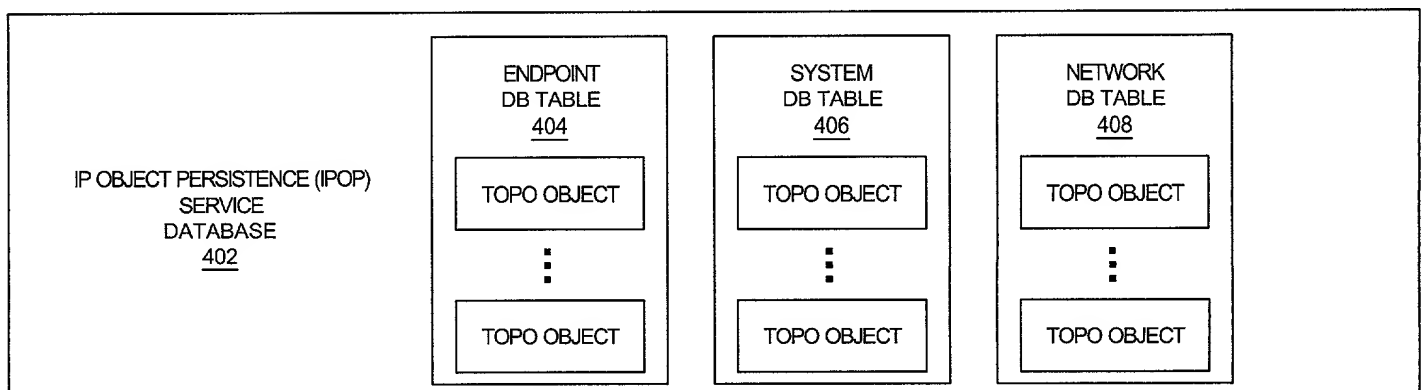


Figure 4

500

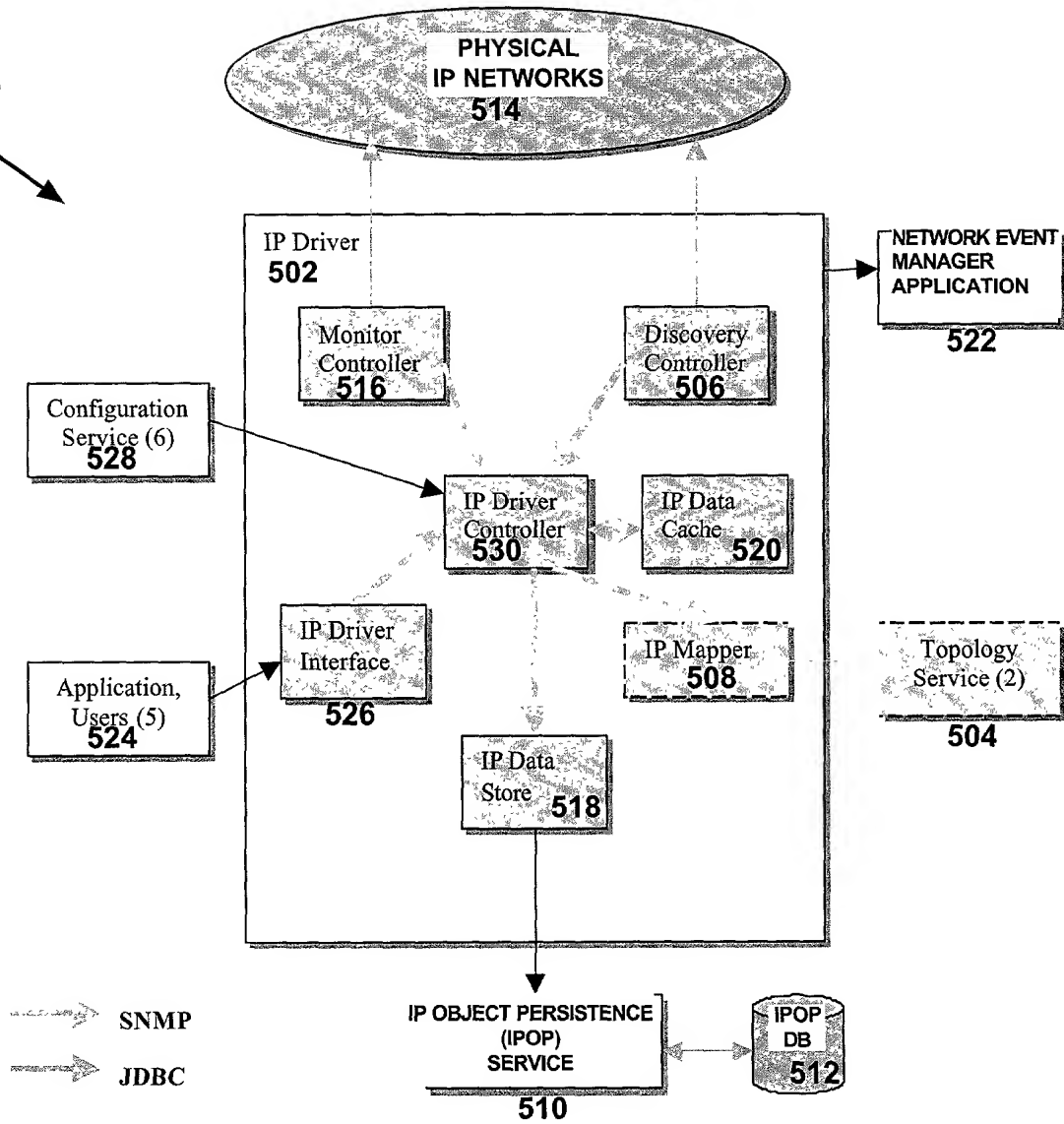


Figure 5A

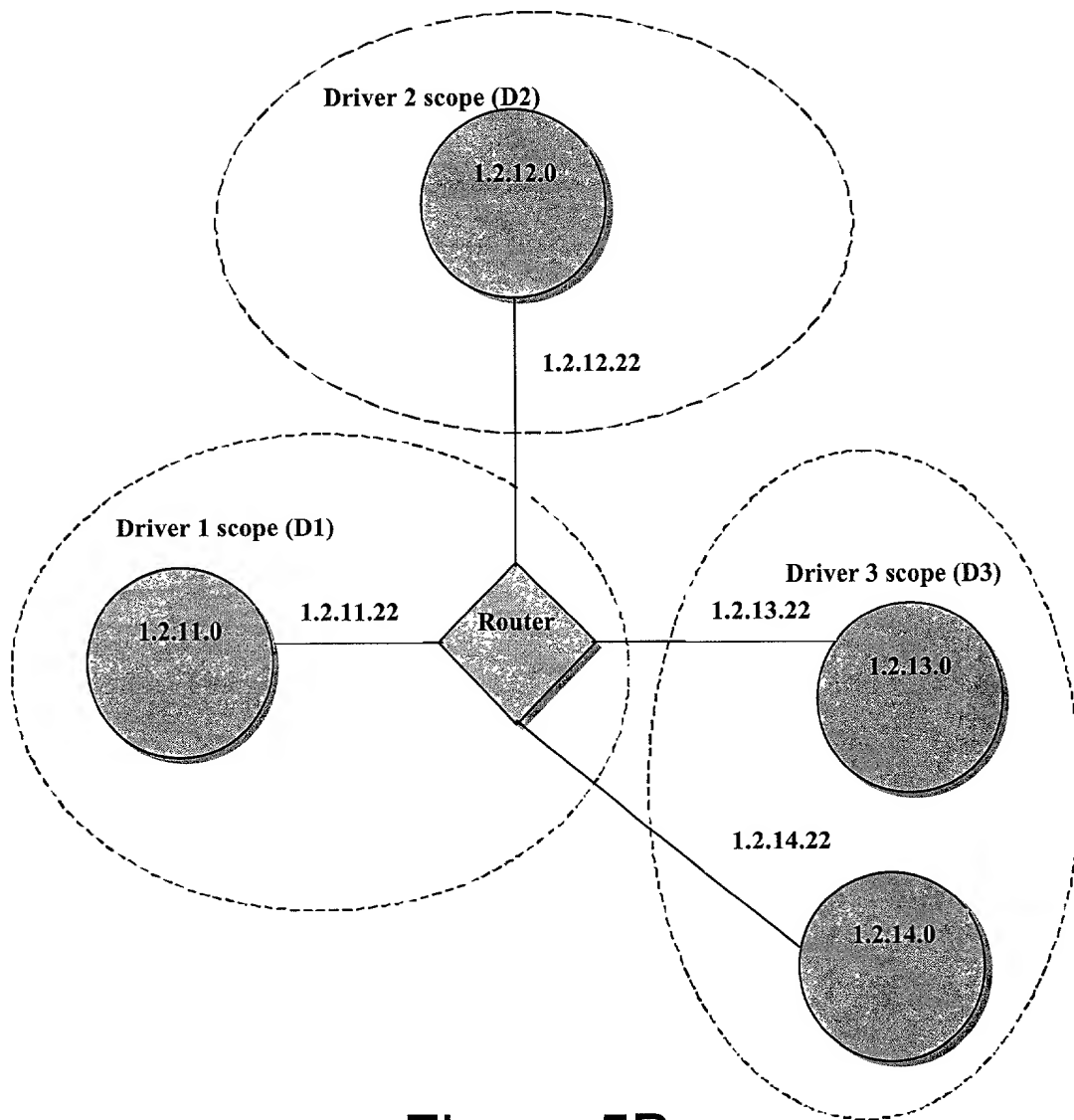


Figure 5B

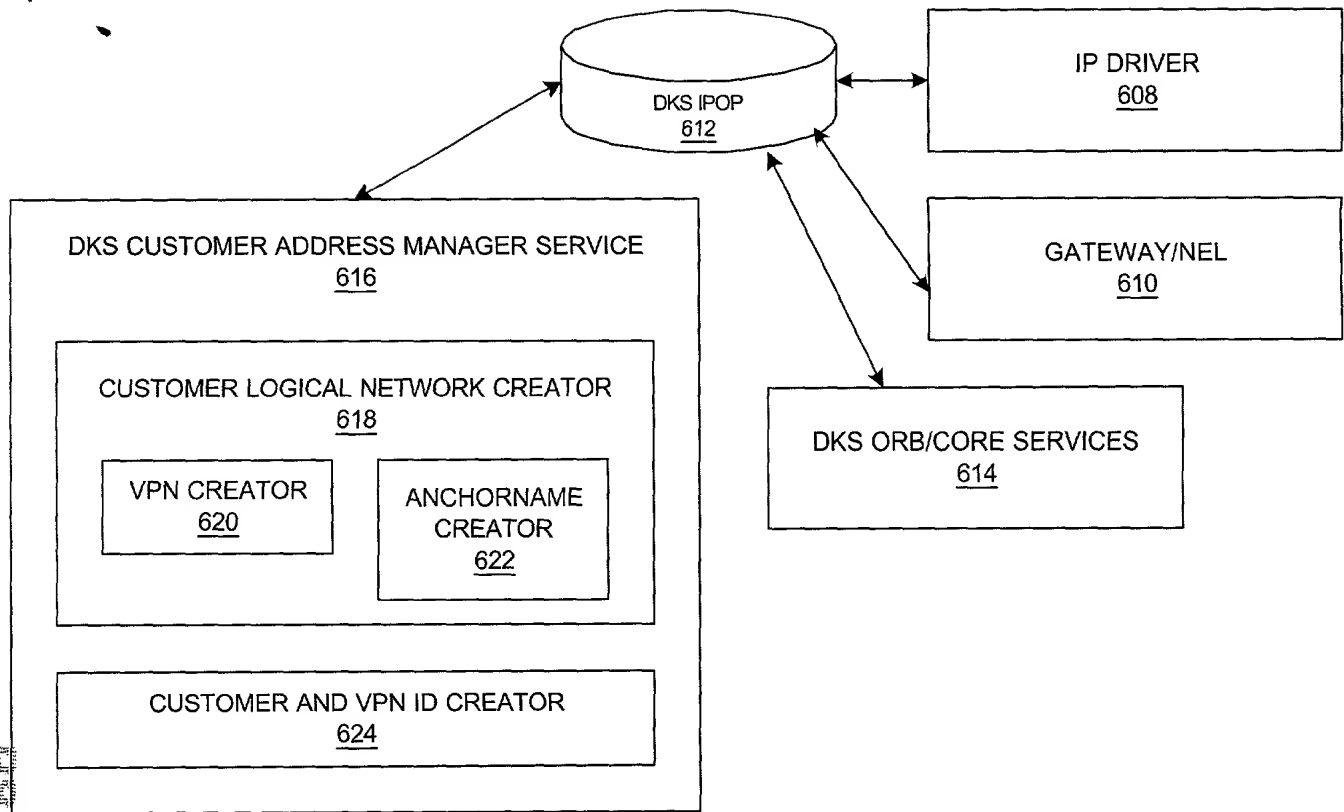


Figure 6A

```

Public Class IPActionObject {

    Endpoint sourceEP;
    Endpoint targetEP;

    // CONSTRUCTOR
    IPActionObject( Endpoint targetEP, Endpoint sourceEP ) {
        .
        .
        .
    }
    VOID performAction( ) // EXECUTES ACTION METHOD
    .
    .
    .
}

```

Figure 6B

```

Public Class Endpoint {

    //public variables
    long                EPObjectID;    //ID to object (both private and public network addresses)
    InetAddress          EPIPAddress;  //physical network address (private or public)
    long                EPVPN;         //virtual private network ID

    //get/set of variables
    public long          getObjectID( ) { ... }
    public InetAddress   getPAddress( ) { ... }
    public long          getVPN( ) { ... }

}

```

Figure 6C

```

Public Class EndpointCustomer extends Endpoint {

    public getVPNGW( ) {
        //gets the only gateway which has access to a particular private network
        .
        .
        .
    }
    //private variables only set/accessed by EP creator IPOP
    long    customerHashNumber;
    String  customerName;
    String  customerAnchorPath;
    Long    objectIoFPrivateGatewayRoute

}

```

Figure 6D

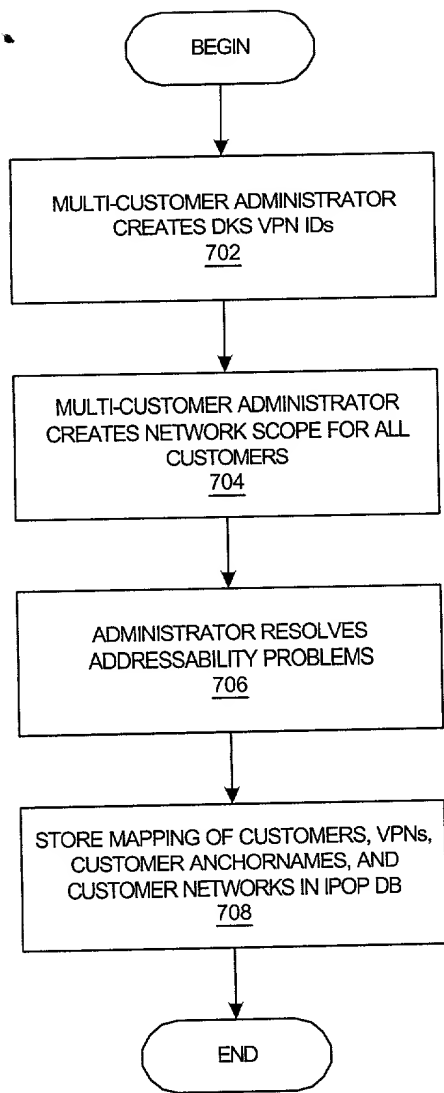


Figure 7A

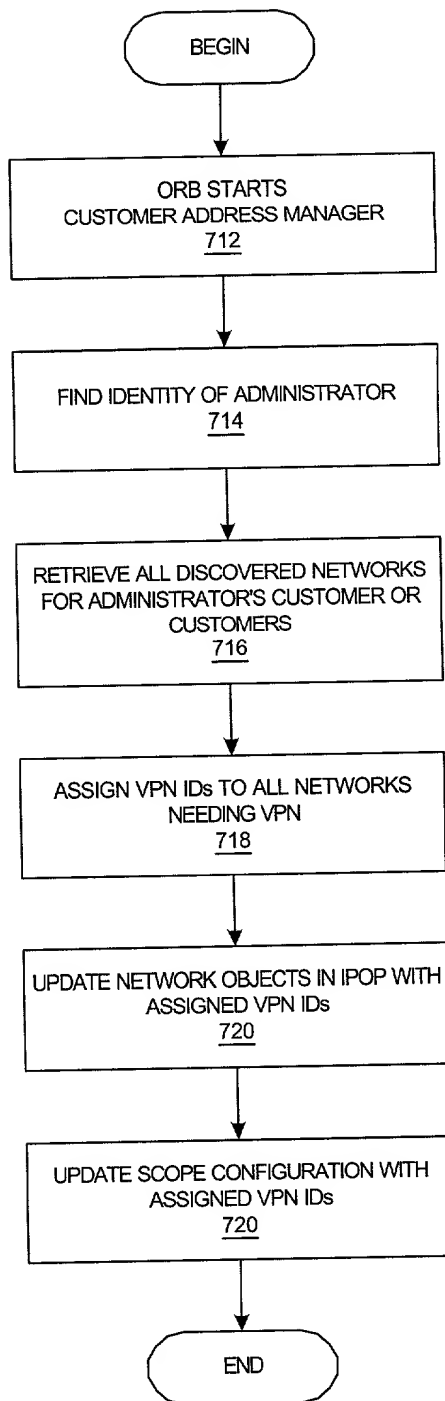


Figure 7B

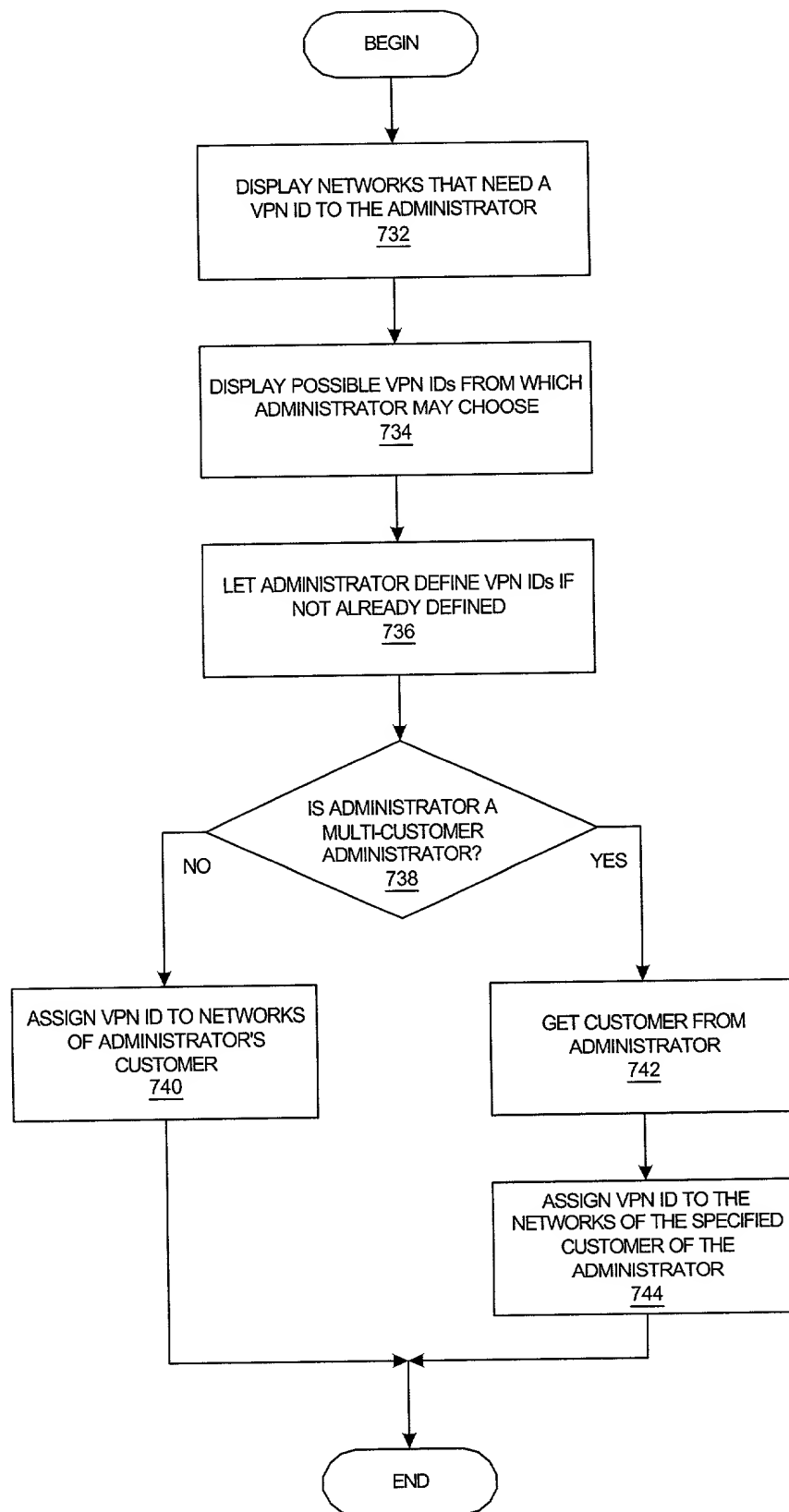


Figure 7C

Network Management Application

850

NETWORKS REQUIRING VPN CREATION--DUPLICATE ADDRESSES EXIST

PHYSICAL NETWORK ADDRESS: 10.7.205.103 852

CUSTOMER ANCHORNAME: AUSTIN\BLDG1 856

VPN ID: 870

☒ CHANGE VPN ID FOR ENTIRE SCOPE 878

SET 874

PHYSICAL NETWORK ADDRESS: 10.7.205.103 854

CUSTOMER ANCHORNAME: AUSTIN\BLDG2 858

VPN ID: 872

CLEAR 876

Figure 8

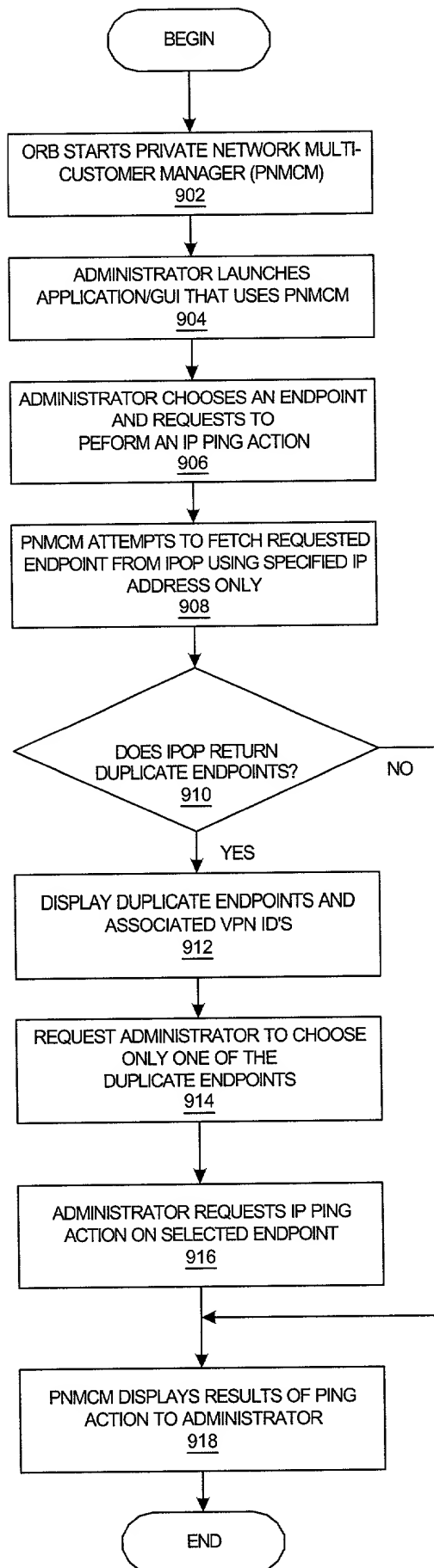


Figure 9A

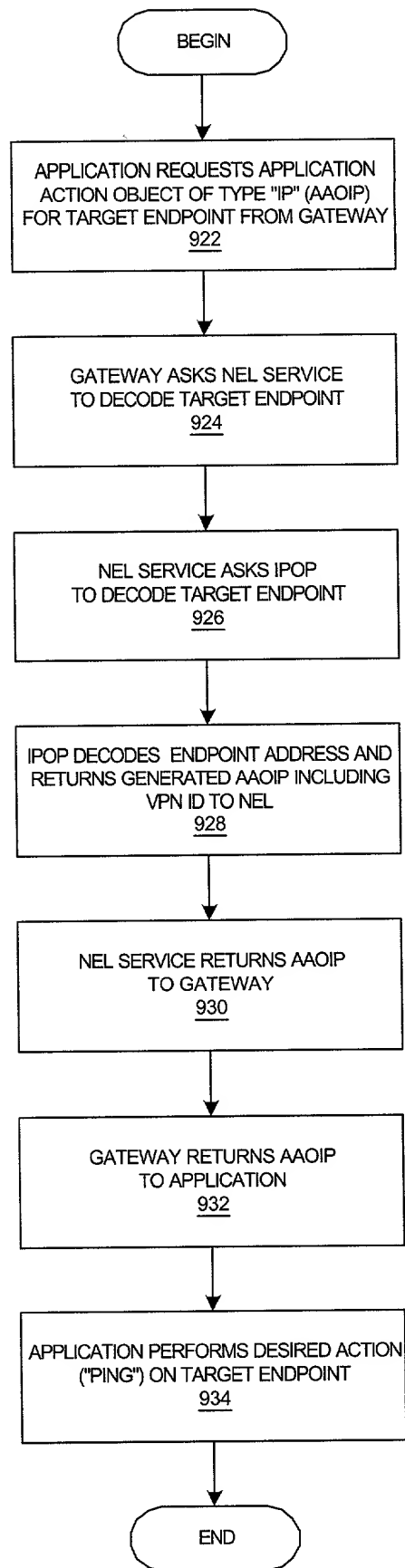


Figure 9B